The new HDR receivers perform DVB-T2, DVB-T and ISDB-T demodulations. DVB-T2 modulation outperforms DVB-T modulation and offers a much higher data rate, and therefore, a higher quality signal or much more robust signal than DVB-T, enabling longer and more complex links.

There are 3 different receivers within the HDR series. The HDR-102 diversity 2, the HDR-104 diversity 4 and the HDR-108 diversity 8, in DVB-T2, DVB-T and ISDB-T demodulations, using spatial diversity based on MRC (Maximum Ratio Combining) technique.

This receiver features H.264 and MPEG-2 decoder for high definition (HD) and standard definition (SD) signals. H.264 compression enables HD signal transmission and reception using 40% lower bitrate than conventional MPEG-2 systems. Moreover, it works in 4:2:2 with 10 bits. MPEG-2 has been included so that the new HDR diversity receivers are compatible with previous SVP transmitter systems.

Based on NTT H.264 compression technology, SVP Broadcast Microwave's diversity receivers offer the highest video quality with minimum end-to-end latency available in the market: 33 ms. For added security, they are compatible with BISS and AES encryptions.

These new generation receivers have several outputs: 3G, HD/SD-SDI, HDMI, Transport Stream over IP and analogue video outputs. They offer simultaneously the received signal in all outputs. SDI embedded, HDMI embedded, analogue and AES audio outputs are available as standard. User data or GPS data can be received over the data channel.

ASI input and Transport Stream over IP input enable its use as a standalone decoder. Besides, the ASI output and the Transport Stream over IP output enable the user to handle the receiver as a demodulator.

The easy control, operation and monitoring make our receivers very manageable. User-friendly interfaces are available on: the front panel and display, serial commands, SNMP and web-browser.
### HDR Diversity Receiver

**Characteristics**

**RF Stage DVB-T2 and DVB-T**
- **Frequency range:** 1.3 to 10.5 GHz
- **Tuning Step:** 10 kHz
- **Input level range:**
  - DVB-T2 @ 2 GHz: -20 to -102 dBm (4 Mbit/s)
  - DVB-T2 @ 5 GHz: -20 to -101 dBm (4 Mbit/s)
- **Diversity:**
  1. (HDR-102), 4 (HDR-104) or 8 (HDR-108) in DVB-T2
  2. (HDR-102), 4 (HDR-104) or 8 (HDR-108) in DVB-T

**Demodulation**
- **DVB-T:**
  - COFDM 2K mode
  - QPSK, 16QAM, 64QAM, 256QAM
  - FEC: 1/2, 2/3, 3/4, 5/6, 7/8
  - IG: 1/4, 1/8, 1/16, 1/32
  - Bandwidth: 5, 6, 7, 8 MHz
  - Max bit rate: 31.67 Mbps
  - Min bit rate: 1 Mbps

- **DVB-T2:**
  - COFDM 2K, 4K, 8K and 8K extend
  - QPSK, 16QAM, 64QAM, 256QAM
  - LDPC FEC: 1/2, 3/4, 5/6, 7/8
  - IG: 1/4, 1/8, 1/16, 1/32
  - Bandwidth: 1.7, 5, 6, 7, 8 MHz
  - Max bit rate: 46.4 Mbps

- **ISDB-T:**
  - QPSK, 16QAM, 64QAM
  - FEC: 1/2, 2/3, 3/4, 5/6, 7/8
  - IG: 1/4, 1/8, 1/16, 1/32
  - Bandwidth: 5, 6, 7, 8 MHz
  - Max bit rate: 31.67 Mbps

**Decoder**
- **H.264:**
  - Profile: Baseline, Main, High
  - High 422 (supports 10 bits)
  - Level: 4.1 - 4.2
  - Latency: 33 ms

- **MPEG-2:**
  - Profile: 423P@HL, MP@HL, 422P@ML, MP@ML
  - Latency: Low delay, 33 ms

- **Audio decoder:**
  - MPEG-1 Layer I/II
  - Max. input bitrate: 320 Mbps
  - Genlock input: Black burst or tri-level, Genlock loop

**Encryption**
- **BISS:**
  - BISS-1 and BISS-E

- **AES:**
  - AES-128 and AES-256 (Optional)

**Data Channels**
- **Data channel:** User data or GPS data
- **Data rate:** 1,200 to 57,600 bps

**ASI and IP**
- **ASI and IP Outputs and Inputs:**
  - ASI transport Stream (EN50083-9)
  - Transport Stream over IP (Optional)
  - SMPTE2022/CS/P3 - FEC
  - Max. TS packets / IP packet: 7

**Video**
- **Outputs:**
  - 2x3G-SDI, HD-SDI and SD-SDI
  - HDMI (1.4a)
  - Composite video with down conversion (PAL/NTSC)

- **Formats:**
  - **1080p** (1920x1080) - 23.98/ 24/ 25/
  - 29.97/ 30/ 59.94/ 60 Hz
  - **1080i** (1920x1080) - 50/ 59.94/ 60 Hz
  - **720p** (1280x720) - 23.98/ 24/ 25/ 29.97/
  - 30/ 59.94/ 60 Hz
  - **576i** (720x576) - 50 Hz
  - **480i** (720x480) - 59.94 Hz

**Audio**
- **Output:**
  - HDMI / SDI embedded/ AES Digital / Analogue

- **Analogue:**
  - 2 Stereo / 4 Mono

- **SDI embedded:**
  - 1 group (4 audio channels)

- **AES/EBU:**
  - 2 stereo channels

**Control and Monitoring of the device**

**Control Interfaces:**
- Front panel and display
- Web Server
- Serial Control
- SNMP

**Monitoring:**
- Decoder parameters
- Demodulation parameters
- Frequency and input level
- MER, BER, C/N
- Alarms, warnings, logbook and clock

**Video & Audio**
- TFT Video screen 2
- 2 x Stereo loudspeakers
- Earphone output

**Autotunning of antenna control**
- Local GPS, Remote GPS and Compass (Optional)

**Power Supply**
- **AC input:** 100 to 240 V
- **DC input:** 11 to 36 V

**Mechanical**
- **Size:** 1 RU, 236 mm (9.3 inches ) depth without connectors
- **Weight:** approx.3 kg (6.6 lb)

**Environmental**
- **Temperature range:** -30 to 45°C
- **Humidity:** 95%

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www.svpbm.com
How to order:

HDR-108-BAIT

8 = Diversity 8
4 = Diversity 4
2 = Diversity 2

B = BNC (75Ω)
T = TNC (50Ω)

A = AES
0 = No AES

I = IP
0 = No IP

T = Autotracking
0 = No Autotracking

Diversity
IF connector type
AES Decryption
TS over IP input/output
Autotracking